

REMARKS

This is in response to the Office Action dated September 22, 2006. Claims 1-13 are pending.

Formality Matters

Paragraph [0044] of the specification has been amended as requested by the Examiner. Moreover, while applicant does not agree with the obviousness-type double patenting rejection, a terminal disclaimer has been filed herewith in order to expedite prosecution.

Claims 7, 8 and 13 stand rejected under Section 112, second paragraph. These Section 112 rejections are respectfully traversed.

Claims 4 and 7 read on, *inter alia*, the example embodiment described in paragraph [0040] where the quasi-Faraday cage is not an active element in the shock circuit. In this embodiment, the cage may advantageously be used to shield extracardiac tissue from shock in order to reduce pain. Note that claim 4 does not state that the cage is used to apply shock. Thus, the Section 112 rejection of claim 7 should be withdrawn.

In claim 8, the cage is adapted to be provided around “a *significant portion* of the heart . . . to make shock less painful as a significant portion of the defibrillation shock field is confined to the heart itself so as to prevent the shock from significantly stimulating extracardiac tissue.” The “significant portion” is a portion large enough “to make shock less painful as a significant portion of the defibrillation shock field is confined to the heart itself so as to prevent the shock from significantly stimulating extracardiac tissue” as recited in the claim. Examples of at least about 50%, at least about 60%, etc. are discussed in paragraph [0026] of the specification. The recitation of “significant portion” in claim 13 is clear in a similar manner.

Claim 1

Claim 1 stands rejected under 35 U.S.C. Section 102(e) as being allegedly anticipated by Alferness (US 6,169,922). This Section 102(e) rejection is respectfully traversed for at least the following reasons.

Claim 1 requires “a quasi-Faraday cage including only a single electrode; wherein the single electrode of the quasi-Faraday cage is adapted to be wrapped around at least about 50% of the heart during application of electric shock to the heart, so that electric shock is adapted to be applied to the heart between the quasi-Faraday cage and an electrode of the ICD adapted to be located inside of the heart to make the shock less painful as a significant portion of a defibrillation shock field is confined to the heart itself so as to prevent the shock from significantly stimulating extracardiac tissue.” It is noted that a quasi-Faraday cage does not cover any sort of jacket; instead, a quasi-Faraday cage comprises a *conductor* that encloses a majority of the interior volume of the heart. Thus, in certain example embodiments, a quasi-Faraday cage shields a region outside the cage from electric fields generated inside (and/or vice versa). The cited art fails to disclose or suggest the aforesaid underlined features of claim 1.

Alferness has two separate and distinct embodiments. First, in the Fig. 3-4 embodiment of Alferness, the jacket 10 is made of a knit fabric material that is required to be *electrically insulating* (e.g., see Alferness at col. 7, lines 61-66; col. 8, lines 43-47). The “electrical insulator” jacket 10 of Figs. 3-4 in Alferness cannot behave as a quasi-Faraday cage including “a single electrode”, where shock is adapted to be applied to the heart between the cage and another electrode located inside of the heart as required by claim 1. Thus, it will be appreciated that the insulating jacket 10 in Figs. 3-4 of Alferness is entirely unrelated to the invention of claim 1.

In contrast with the Fig. 3-4 embodiment, the Fig. 8-9 embodiment of Alferness does use a pair of opposing electrodes 101, 101a. In the Fig. 8-9 embodiment, the first and second different electrodes are provided in the jacket 10 and are required to be located on “opposite sides of the heart” (e.g., col. 9, lines 25-27 and 59-63). The electrodes on the opposite sides of the heart may be formed of conductors 101 separate from the fibers 21a, 21b as shown in Fig. 9, or alternatively the electrodes on the opposite sides of the heart may be made by selective metallizing certain of the fibers 21a, 21b as explained at col. 10, lines 19-21. In either event, there are two separate and distinct electrodes located on opposite sides of the heart, to which different potentials are applied in order to apply a defibrillating shock (e.g., col. 9, lines 58-67).

Because the Fig. 8-9 embodiment of Alferness requires two different electrodes (to which different potentials must be applied) on opposite sides of the heart, the reference cannot possibly disclose or suggest a “quasi-Faraday cage including only a single electrode” as required by claim 1. Moreover, in Figs. 8-9 of Alferness, both electrodes are located in the jacket 10 *outside* of the heart; thus, shock in Alferness cannot be applied “between the quasi-Faraday cage and an electrode of the ICD adapted to be located *inside* of the heart” as required by claim 1.

For each of the numerous reasons set forth above, the Section 102(e) rejection of claim 1 based on Alferness is fundamentally flawed and should be withdrawn. Alferness is unrelated to the invention of claim 1 in each of the above respects.

Other Claims

Claim 4 requires “a quasi-Faraday cage including only a single electrode; wherein the single electrode of the quasi-Faraday cage is adapted to be wrapped around at least about 50% of the heart during application of electric shock to the heart.” Again, Alferness fails to disclose or suggest this. The Fig. 3-4 embodiment of Alferness has no electrode, and the Fig. 8-9

embodiment of Alferness requires two different electrodes in the jacket on opposite sides of the heart.

Claim 8 requires “a quasi-Faraday cage including only a single electrode; wherein the single electrode of the quasi-Faraday cage is adapted to be wrapped around a significant portion of the heart during application of electric shock to the heart, so that electric shock is adapted to be applied to the heart between the quasi-Faraday cage and an electrode of the ICD adapted to be located inside of the heart.” Again, Alferness fails to disclose or suggest these features of claim 8.

Claim 12 requires that “electrodes of the quasi-Faraday cage are adapted to be wrapped around at least about 60% of the heart during application of the electric shock so that electric shock is adapted to be applied to the heart between the quasi-Faraday cage and an electrode of the ICD adapted to be located inside of the heart to make the shock less painful as a significant portion of a defibrillation shock field is confined to the heart itself so as to prevent the shock from significantly stimulating extracardiac tissue.” Alferness fails to disclose or suggest these features of claim 12. The Fig. 3-4 embodiment of Alferness has no electrode, and the Fig. 8-9 embodiment of Alferness requires two different electrodes in the jacket on opposite sides of the heart – there is no electrode “inside of the heart” in the Fig. 8-9 embodiment of Alferness because both electrodes are in the jacket outside of the heart.

Claim 13 requires that “electric shock is adapted to be applied to the heart between the quasi-Faraday cage and an electrode of the ICD adapted to be located inside of the heart to make the shock less painful.” Again, in Alferness there is no electrode inside of the heart. The proposed modification to Alferness does not overcome this fundamental flaw.

Conclusion

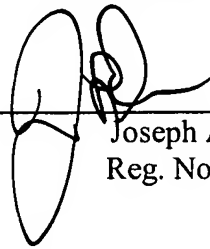
BERGER
Appl. No. 10/681,740

It is respectfully requested that all rejections be withdrawn. All claims are in condition for allowance. If any minor matter remains to be resolved, the Examiner is invited to telephone the undersigned with regard to the same.

Respectfully submitted,

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